Space Filling Quantizers for Digital Watermarking

Abstract of the Disclosure

A QIM watermark embedder uses a space filling quantizer to imperceptibly embed an auxiliary message signal into a media signal, such as an image, audio or video signal. A specific example of the space filling quantizer is a hexagonal lattice quantizer. A QIM watermark decoder uses a compatible space filling quantizer to decode the auxiliary message signal from a potentially distorted version of the watermarked media signal. The shape filling quantizer enhances the information carrying capacity of the digital watermark.